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(56) Documents cited

GB 0367143 A US 4781277 A

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UK CL (Edition K) A4S S1G S1H S1J

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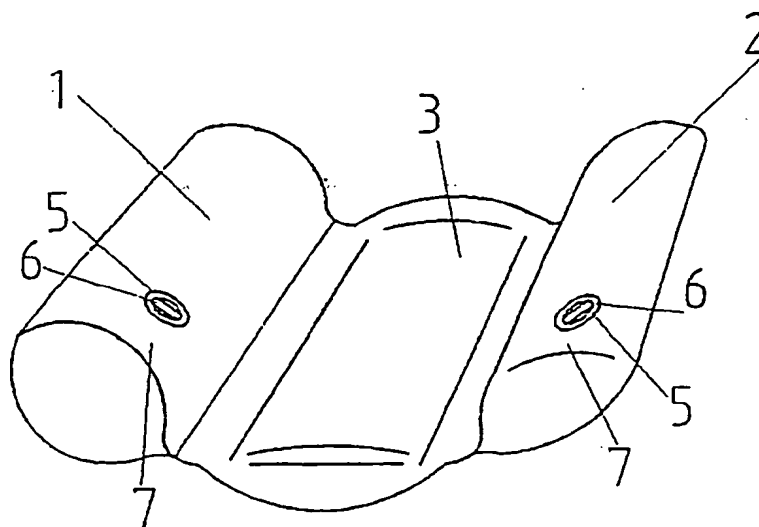
Online databases: WPI

(54) **A safe portable inflatable baby changing mat**

(57) A baby changing mat is disclosed which is made from soft flexible P.V.C. foil comprising two bolster shaped inflatable envelopes, or inflatable cushions 1 & 2, each attached to opposite sides of a substantially flat and rectangular shaped central section 3 on which the baby is laid, wherein the cushions 1 & 2 are large enough when inflated to restrain a baby from wriggling away or rolling off the central section 3.

The inflatable cushions 1 & 2 are inflated with air or alternatively inflated by stuffing with latex foam. Each air inflated cushion 1 & 2, is airtight, and is provided with an air inflating valve 5, similar to those provided on inflatable Swimming Floats and Pool/Beach ware. Preferably the central section 3 is filled with latex foam padding or alternatively is provided with air inflation in a manner similar to air inflated Lilos.

Fig 3



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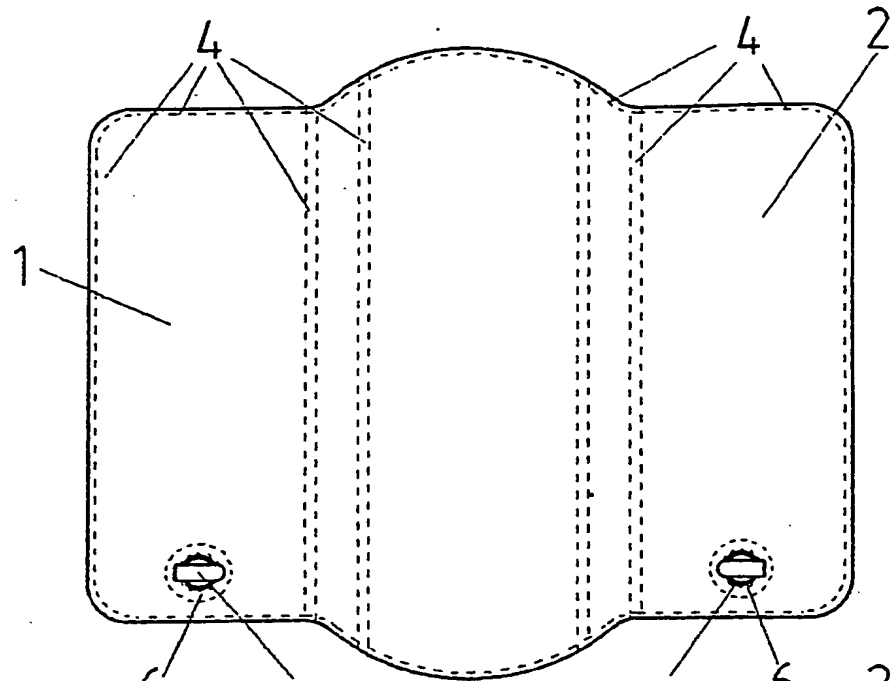


Fig 1

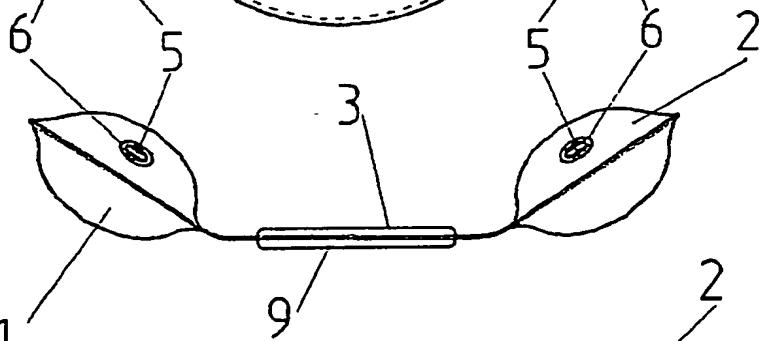


Fig 2

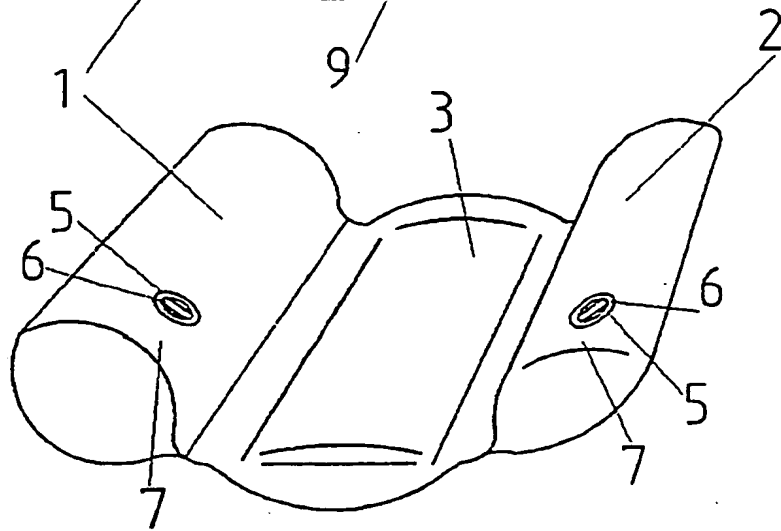


Fig 3

A SAFE PORTABLE INFLATABLE BABY CHANGING MAT

This invention relates to improvements in "Baby" Changing Mats, i.e. Mats used on table tops to lay a baby on when nappy changing.

When momentarily left alone on a changing mat some active older babies tend to wriggle away or roll off the changing table top with possible disastrous consequences.

Present day baby changing mats are not completely safe, as there is little or no provision to restrain a baby from wriggling away or rolling off the mat.

Some purpose made nappy changing tables particularly the hammock variety exist which may give a modicum of protection against this hazard, but they are bulky and not easily portable for use when visiting or on holiday.

The object of the present invention is to overcome the above drawbacks of present day baby changing mats by providing a safe portable inflatable baby changing mat that has provision, when inflated, for restraining a baby from rolling off or wriggling away while nappy changing, and when not in use deflates and folds flat to a reasonably small compact, light portable pack.

## REFERENCE TO DRAWINGS

A specific embodiment of the invention will now be described by way of example with reference to the accompanying drawing in which:-

Figure 1 is plan view of the inflatable baby changing mat in the deflated mode.

Figure 2 is a front elevation of the inflatable baby changing mat in the inflated mode.

Figure 3 is a perspective view of the inflatable baby changing mat inflated.

## DESCRIPTION

Referring to figures 1, 2, & 3, there is provided a baby changing mat substantially made from P.V.C. foil, preferably fire retardant high frequency weldable, soft, flexible, P.V.C. foil or similar plastic material, comprising two bolster shaped inflatable envelopes, or inflatable cushions, 1 & 2, each attached to opposite sides of a substantially flat and rectangular shaped central section 3, on which the baby is laid, characterised in that the cushions 1 & 2, when inflated, are sufficiently large enough to restrain a baby from wriggling away or rolling off the central section 3.

The inflatable cushions 1 & 2, are each provided with air inflating means and/or alternatively, means for inflation by stuffing each cushion 1 & 2, with a soft spongy material, preferably fire retardant latex foam (not shown).

The air inflating means embodies high frequency welding of the cushion seams 4, to make airtight, and each cushion 1 & 2, is provided with at least one inflating nipple or inflating valve 5, welded and embodied in an orifice 6, provided in the skin or foil 7, of the cushions 1 & 2.

Each inflating nipple or inflating valve preferably comprises a lip valve 5, for inflation by mouth and is preferably provided with a hinged plug, 6, and/or a non-return valve type feature, and/or of the press-in retractable feature, similar to those provided on inflatable Swimming Rings, Floats, Lilos, and other inflatable Pool/Beach ware.

Preferably the central section 3, comprises a seam welded shallow envelope 8, filled with a spongy padding material 9, preferably fire retardant latex foam sheeting.

Alternatively, the central section 3, is provided with air tight means and air inflating valve means similar to that described for the air inflatable cushions, together with spot welds and/or short line welds provided in the middle area of the central section 3, similar to those used in air inflated Lilos, in order to maintain a reasonably flat and shallow profile for the baby to lie on.

For added safety, preferably the cushions and/or central section are provided with a double skin or inner bag.

Preferably the central section 3, is longer than the inflatable cushions 1 & 2, and extends beyond them to provide support for the baby's head and feet.

Alternatively, all welding referred to above is by the use of Ultrasonic Welding Apparatus.

CLAIMS:-

1. A safe portable inflatable baby changing mat, substantially made from P.V.C. foil, preferably, fire retardant, High Frequency Weldable, soft, flexible, P.V.C. foil, or similar plastic material, comprising two bolster shaped inflatable envelopes, or inflatable cushions, each attached to opposite sides of a substantially flat and rectangular shaped central section, on which the baby is laid, characterised in that the said cushions when inflated are sufficiently large enough to restrain the baby from wriggling away or rolling off the said mat.
2. A safe portable inflatable baby changing mat as in claim 1, characterised in that the said inflatable cushions are provided with means for inflation with air and/or alternatively, means for inflation by stuffing with a soft spongy material, including fire retardant Latex foam.
3. A safe portable inflatable baby changing mat as in claim 2, characterised in that the said means for inflation with air embodies the said cushions made airtight by high frequency seam welding and provision of at least one inflating nipple or inflating valve means, embodied in an orifice provided in the skin or foil of each of the said cushions.
4. A safe portable inflatable baby changing mat as in claim 3, characterised in that the said inflating nipple or inflating valve means includes lip valves provided with a hinged plug means, and/or non-return valve means, and/or press-in retractable means, similar to those provided on inflatable swimming rings, floats, Lilos, and other inflatable pool/beach ware.
5. A safe portable inflatable baby changing mat as in any one or more of the above claims, characterised in that the said central section is provided with soft padding means.

6. A safe portable inflatable baby changing mat as in claim 5, characterised in that the said soft padding means of the said central section comprises a seam welded shallow envelope filled with a spongy padding material, preferably fire retardant, flat latex foam sheeting, or alternatively provided with air padding/inflating means.

7. A safe portable inflatable baby changing mat as in claim 6, characterised in that the said air padding/inflation means includes air inflating means similar to the airtight cushion inflating means described in claim 3, together with the embodiment of spot welds and/or short line welds in the central section similar to those used in air inflated Lilos.

8. A safe portable inflatable baby changing mat as in one or all the above claims, characterised in that a double skin or inner bag for added safety is provided for the cushions and/or central section.

9. A safe portable inflatable baby changing mat as in any one or more of the above claims, characterised in that the said central section is made substantially longer than the said bolster shaped envelopes and extends beyond them at at least one end to provide support for the baby's head and/or feet.

10. A safe portable inflatable baby changing mat as in any one or more of the above claims, characterised in that alternatively all welding referred to is carried out on Ultra Sonic Welding Apparatus.

11. A safe portable inflatable baby changing mat substantially as described herein with reference to and as illustrated in the accompanying drawings.

6.

**Patents Act 1977**

**Examiner's report to the Comptroller under  
Section 17 (The Search Report)**

Application number

9210881.0

**Relevant Technical fields**

(i) UK CI (Edition K ) A4S (S1G, S1H, S1J)

(ii) Int CL (Edition 5 ) A47D 15/00, A47G 27/02,  
A47K 7/08

Search Examiner

S J QUICK

**Databases (see over)**

(i) UK Patent Office

(ii) ONLINE DATABASE: WPI

Date of Search

9 JULY 1992

Documents considered relevant following a search in respect of claims

1-11

Category (see over)	Identity of document and relevant passages	Relevant to claim(s)
A	GB 0367143 A (NATHAN MAISSEL) See Figure 1 and page 2, lines 44-49	
A	US 4781277 A (HOOI H LIM) See Figure 3	



Category	Identity of document and relevant passages	Relevant to claim(s)

### Categories of documents

X: Document indicating lack of novelty or of inventive step.

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